

# Loss of Hope and Suicide Risk in Hungarian College Students: How the Presence of Perceived Family Support Makes a Positive Difference

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## Abstract

We examined hope and family support as predictors of suicide risk (viz., anxious symptoms, depressive symptoms, and suicide ideation) in a sample of 502 Hungarian college students. Results of hierarchical regression analyses indicated that the inclusion of family support provided further incremental validity in predicting all three indices of suicide risk beyond the variance accounted for by hope. Consistent with the notion that family support might moderate the beneficial effects of hope on suicide risk, evidence for a significant Hope  $\times$  Family Support interaction effect in predicting all three indices of suicide risk was found. Additionally, a significant interaction effect in predicting suicide ideation remained, even after controlling for psychological symptoms. Beyond the role of hope in predicting suicide risk in Hungarian college students, the present findings show how family support both additively and interactively represents a positive psychological resource that should be considered in understanding suicide risk among students.

## Keywords

hope, family support, anxiety, depression, suicide ideation, college students

Suicide is a serious problem throughout the world (World Health Organization [WHO], 2014). For example, suicide has been, and continues to be, one of the most serious concerns faced by young adults including college students (Drum, Brownson, Denmark, & Smith, 2009; Kisch, Leino, & Silverman, 2005). Among college-aged adults, suicide has been found to be the second leading cause of death behind unintentional injury (e.g., fatal traffic accidents, accidental poisoning; Centers for Disease Control & Prevention, 2014). According to some researchers (e.g., Bonner & Rich, 1987; Sareen, 2011; Westefeld & Furr, 1987), both distal (e.g., anxious symptoms, depressive symptoms) and proximal (e.g., suicide ideation) variables are believed to increase the risk of dying by suicide among college students.

## *Understanding Suicide Risk in Hungarian College Students: Does the Presence of Family Support Moderate the Positive Effects of Hope on Suicide Risk?*

*Hope as a positive psychological factor associated with reduced suicide risk.* Given the seriousness of suicide and its prevalence in college student populations (Drum et al., 2009; Schwartz & Friedman, 2009; Westefeld et al., 2006), it is not surprising that researchers have focused on identifying important predictors of suicide risk (e.g., anxious symptoms, depressive symptoms,

and suicide ideation) in college students. That said, in contrast to conducting studies that focus on negative predictors (e.g., loneliness, problem-solving deficits, and perfectionism; Flett, Hewitt, & Heisel, 2014; Muyan & Chang, 2015; Stickley & Koyanagi, 2016) of risk factors associated with suicide, a recent report by the WHO (2014) highlighted the importance of also focusing on the study of protective factors that might be associated with suicide and suicide risk among individuals around the world. One variable worth considering in the study of suicide protection is hope.

According to Snyder and colleagues (Snyder, 2002; Snyder et al., 1991), *hope* represents a central cognitive set defined by a determination to reach goals and an ability to make plans to meet those goals. In turn, being hopeful is believed to facilitate positive outcomes and experiences and to help thwart negative outcomes and experiences (Snyder, 1994, 2002). Indeed, findings from studies of adults have shown that hope is not only

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positively associated with positive psychological outcomes (e.g., subjective well-being, life satisfaction; Snyder et al., 1991) but also negatively associated with negative psychological outcomes including suicide risk factors (e.g., anxious symptoms, depressive symptoms, and suicide ideation; Arnau, Rosen, Finch, Rhudy, & Fortunato, 2007; Chang et al., 2015; O'Keefe & Wingate, 2013; Range & Penton, 1994). For example, in a recent study of diverse ethnoracial college students, Hirsch, Visser, Chang, and Jeglic (2012) found that higher levels of hope were associated with lower levels of suicidal behaviors (e.g., suicide ideation) in students.

**Family support as a positive additive and interactive factor.** Beyond hope, however, we believe that the social context around which positive goal-oriented thoughts unfold also matters. For example, findings from some studies have indicated that the beneficial effects of hope on suicide risk might be reduced when individuals are challenged by aversive interpersonal contexts (e.g., interpersonal victimization; Chang et al., 2015; Chang, Yu, Chang, & Hirsch, 2016). Yet what is not clear is if the presence of desirable interpersonal contexts might strengthen the beneficial effects of hope on suicide risk. In the present study, we focus on one potential positive factor, namely, family support.

We contend that *family support*, defined as the perception that one's family is readily able and willing to support each other during times of difficulty (Julkunen & Greenglass, 1989), operates as a distinct protective factor in two specific ways. First, family support might lower a student's risk of suicide by providing them with social capital. According to Coleman (1988), social capital, as derived from central sources like one's family, involves key interpersonal relationships that serve as positive resources for individuals when engaged in a goal-driven activity (e.g., parents offering their child support in dealing with academic problems). Indeed, findings from numerous studies based on college students have shown that general social support represents a major positive resource that is positively associated with positive outcomes (e.g., life satisfaction and positive mood; Brannan, Biswas-Diener, Mohr, Mortazavi, & Stein, 2013; Mahmoud, Staten, Lennie, & Hall, 2015) and negatively associated with negative outcomes including suicide risk (e.g., depressive symptoms and suicide ideation; Clum & Febraro, 1994; Hirsch & Barton, 2011; MacGeorge, Samter, Feng, Gillihan, & Graves, 2004). Second, family support might moderate the beneficial effects of positive variables such as hope on suicide risk among college students. For example, consistent with the notion of "doubling up," namely, that the co-presence of positive factors confers added psychological benefits (Chang, Yu, & Hirsch, 2013; Yu & Chang, 2016), one might hypothesize that among high-hope students those who believe that they can depend on their family for support when encountering difficult situations might be more likely to avoid feelings of distress and despair (e.g., anxious symptoms, suicide ideation), compared to those who believe that they cannot depend on their family for support. Alternatively, consistent with the notion of "doubling down,"

namely, that the co-absence of positive factors proffers added psychological costs, one might hypothesize that among low-hope students those who believe that they cannot depend on their family for support when encountering difficult situations might be more likely to develop feelings of distress, compared to those who believe they can depend on their family for support. To date, a prediction model in which family support is examined, above and beyond hope, as both an additive and interactive predictor of suicide risk in college students has yet to be tested.

**Studying suicide risk in Hungarian college students.** It is worth noting that most of the studies examining predictors of suicide risk in college students have been conducted almost exclusively in North America. However, because suicide is a global problem, understanding suicide risk should not be limited to college students from one particular continent or country. For example, compared to North America, countries in Eastern Europe have often had higher rates of suicide, with countries in Eastern Central Europe (e.g., Hungary, Austria, and Slovenia) reporting some of the highest rates of suicide (Voracek & Marušič, 2008). Indeed, between 1950 and 2009, Hungary had one of the highest rates of suicide worldwide (Laszlo, Hulman, Csicsman, Bari, & Nyari, 2015; Värnik, 2012). Even as recent as 2012, Hungary had one of the highest suicide rates in Europe (only second to Lithuania) of 25.4 per 100,000 people compared to the regional average of 13.8 across Europe and the national average of 13.7 in the United States (WHO, 2016). Among young adults, Hungary continues to have rates of suicide that are at least comparable to those found in the United States (WHO, 2014). For these reasons, we sought to examine for the role of hope and family support as predictors of suicide risk indices in Hungarian college students.

## Purpose of the Present Study

Given these possibilities, we conducted the present study in a sample of Hungarian college students to (1) examine the relations between hope, family support, and suicide risk (viz., anxious symptoms, depressive symptoms, and suicide ideation); (2) determine whether the inclusion of family support adds further incremental validity to the prediction of suicide risk, above and beyond hope; and (3) determine whether there is a significant Hope  $\times$  Family Support interaction effect in predicting suicide risk.

Consistent with theory and past research findings, we expected to find hope and family support to be negatively associated with suicide risk (e.g., Arnau et al., 2007; Chang et al., 2015; Clum & Febraro, 1994; Hirsch & Barton, 2011; O'Keefe & Wingate, 2013). Furthermore, as an important and positive social resource associated with psychological adjustment (e.g., Brannan et al., 2013; MacGeorge et al., 2004), we hypothesized that the presence of family support would add significant incremental validity to the prediction of suicide risk, even after accounting for variance attributed to hope. Relatedly, consistent with the notion that family support might also

moderate the association between hope and suicide risk, we expected to find support for a significant Hope  $\times$  Family Support interaction effect. However, we did not make any specific prediction regarding whether or not the pattern of the interaction would be consistent with a doubling up effect, a doubling down effect, or both (Chang, Yu, & Hirsch, 2013).

## Method

### Participants

This study consisted of 502 Hungarian college students (241 males and 261 females) from a large public university in Budapest, Hungary. Ages ranged from 18 to 35 years, with a mean age of 21.81 years ( $SD = 2.32$ ). The majority of the students were juniors (42.0%), followed by freshmen (17.9%), sophomores (17.9%), seniors (12.2%), and those who indicated “other” (10.0%).

### Measures

**Hope.** Hope was assessed by the Hope Scale (HS; Snyder et al., 1991). The HS is a 12-item measure of hope (e.g., “My past experiences have prepared me well for my future”). Four items are filler items. Respondents are asked to indicate how accurately each item describes them using an 8-point Likert-type scale, ranging from 1 (*definitely false*) to 8 (*definitely true*). We used an adapted Hungarian version of the HS in the present study (Martos, Lakatos, & Tóth-Vajna, 2014). In the present sample, internal reliability for the HS was .90. In general, higher scores on the HS indicate greater hope.

**Family support.** To assess for family support, we used the Family Support Scale (FSS; Julkunen & Greenglass, 1989). The FSS is a 12-item self-report measure that assesses for family support (e.g., “My family supports me in all my efforts”). Respondents are asked to indicate the extent to which they agree with each item using a 5-point Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). We used an adapted Hungarian version of the FSS in the present study. However, given our focus on college students, items that assessed for family support in managing chronic illness (2 items) were not included. This resulted in a shortened 10-item version of the FSS that was used in the present study. The Hungarian translation was achieved following established guidelines for cross-cultural translation of instruments (Brislin, 1980). Noteworthy, an exploratory factor analysis conducted on these 10 items from the present sample indicated a single latent factor (eigenvalue = 4.33) that accounted for 54.10% of the variance in FSS scores. In the present sample, internal reliability for the FSS was .89. In general, higher scores on the FSS indicate greater perceived family support.

**Anxious symptoms.** Anxious symptoms were measured using the Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988). The BAI is a 21-item self-report measure of anxious

symptoms (e.g., “Fear of the worst happening”). Respondents are asked to rate the extent to which they have experienced each symptom over the past week using a 4-point Likert-type scale ranging from 0 (*not at all*) to 3 (*severely*). We used an adapted Hungarian version of the BAI in the present study (Perczel Forintos, Kiss, & Ajtay, 2007b). In the present sample, internal reliability for the BAI was .90. Higher scores on the BAI indicate greater anxious symptoms.

**Depressive symptoms.** Depressive symptoms were measured using the BDI (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The BDI is a commonly used 21-item self-report measure of depressive symptomatology. Respondents are asked to rate the extent to which they have experienced specific depressive symptoms in the past week, across a 4-point Likert-type scale (e.g., “0 = *I do not feel sad*” to “3 = *I am so sad or unhappy that I can't stand it*”). We used an adapted Hungarian version of the BDI in the present study (Perczel Forintos, Kiss, & Ajtay, 2007a). In the present sample, internal reliability for the BDI was .91. Higher scores on the BDI indicate greater depressive symptoms.

**Suicide ideation.** Suicide ideation was assessed by the Frequency of Suicidal Ideation Inventory (FSII; Chang & Chang, 2016). The FSII is a 5-item scale that assesses for the frequency of suicide ideation (e.g., “Over the past 12 months, how often have you thought about killing yourself?”). Respondents are asked to indicate how frequently they have entertained suicidal thoughts over the past year using a 5-point Likert-type scale, ranging from 1 (*never*) to 5 (*almost every day*). We used an adapted Hungarian version of the FSII in the present study (Chang & Chang, 2016; Chang et al., in press). In the present sample, internal reliability for the FSII was .92. In general, higher scores on the FSII are indicative of greater suicide ideation frequency.

### Procedure

The present study was reviewed by the institutional review board at the university where the study was conducted and deemed exempt. Participants were solicited from upper level psychology courses and received extra course credit upon completion of the survey.

## Results

Correlations, means, and standard deviations for all study measures are presented in Table 1. As expected, hope was negatively correlated with anxious symptoms ( $r = -.32, p < .001$ ), depressive symptoms ( $r = -.49, p < .001$ ), and suicide ideation ( $r = -.40, p < .001$ ). Likewise, family support was negatively correlated with anxious symptoms ( $r = -.33, p < .001$ ), depressive symptoms ( $r = -.46, p < .001$ ), and suicide ideation ( $r = -.43, p < .001$ ). Finally, as positive protective factors, hope and family support were found to be positively associated with each other ( $r = .33, p < .001$ ).

**Table 1.** Correlations Between Measures of Hope, Family Support, Anxious Symptoms, Depressive Symptoms, and Suicide Ideation in Hungarian College Students.

Measures	1	2	3	4	5
1. HS	—				
2. FSS	.33***	—			
3. BAI	-.32***	-.33***	—		
4. BDI	-.49***	-.46***	.70***	—	
5. FSII	-.40***	-.43***	.54***	.65***	—
M	46.15	36.43	11.26	8.75	7.27
SD	8.56	7.46	8.94	8.97	3.66

Note.  $N = 502$ . HS = Hope Scale; FSS = Family Support Scale; BAI = Beck Anxiety Inventory; BDI = Beck Depression Inventory; FSII = Frequency of Suicidal Ideation Inventory.

\*\*\* $p < .001$ .

### Examining Hope and Family Support as Predictors of Suicide Risk in Hungarian College Students

To examine whether family support would add incremental validity, beyond hope, in predicting suicide risk in Hungarian college students, we conducted a set of hierarchical regression analyses in predicting each of the three indices of suicide risk examined in the present study. For each regression analysis, hope was entered in Step 1, followed by family support in Step 2. Finally, we entered the multiplicative Hope  $\times$  Family Support term in Step 3 to determine whether family support might moderate the association found between hope and suicide risk. To determine whether any of the predictors accounted for a small, medium, or large amount of the variance in suicide risk, we used Cohen's (1977) convention for small ( $f^2 = .02$ ), medium ( $f^2 = .15$ ), and large effects ( $f^2 = .35$ ) as a general guide.

Results for predicting anxious symptoms, depressive symptoms, and suicide ideation are presented in Table 2. As the table shows, hope was found to account for a small-medium ( $f^2 = .11$ ) 10.3% of the variance in anxious symptoms. Family support was found to account for a small ( $f^2 = .06$ ), but significant 5.4% of additional unique variance in anxious symptoms. When the Hope  $\times$  Family Support term was entered, it was found to account for a small ( $f^2 = .01$ ), but significant 1.0% of additional unique variance in anxious symptoms. The total model was found to account for a medium ( $f^2 = .20$ ) 16.8% of the variance in anxious symptoms,  $F(3, 498) = 33.42, p < .001$ .

In predicting depressive symptoms, hope was found to account for a medium-large ( $f^2 = .31$ ) 23.5% of the variance in depressive symptoms. Family support was found to account for a small-medium ( $f^2 = .11$ ) 10.1% of additional unique variance in depressive symptoms. When the Hope  $\times$  Family Support term was entered, it was found to account for a small ( $f^2 = .02$ ), but significant 2.1% of additional unique variance in depressive symptoms. The total model was found to account for a large ( $f^2 = .56$ ) 35.7% of the variance in depressive symptoms,  $F(3, 498) = 92.23, p < .001$ .

**Table 2.** Results of Hierarchical Regression Analyses Showing Amount of Variance in Anxious Symptoms, Depressive Symptoms, and Suicide Ideation Accounted for by Hope and Family Support in Hungarian College Students.

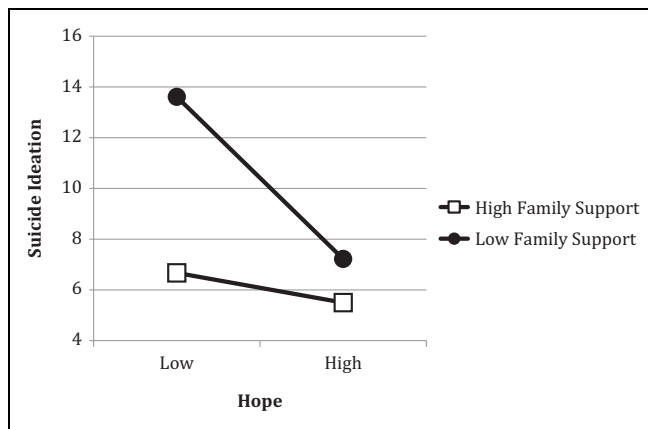
Outcome	$\beta$	$R^2$	$\Delta R^2$	$F$	$p$
Anxious symptoms					
Step 1: Hope	-.032***	.10	—	57.37	<.001
Step 2: Family support	-.025***	.16	.05	31.90	<.001
Step 3: Hope $\times$ Family Support	0.77*	.17	.01	6.42	<.05
Depressive symptoms					
Step 1: Hope	-.049***	.24	—	154.00	<.001
Step 2: Family support	-.034***	.34	.10	75.62	<.001
Step 3: Hope $\times$ Family Support	1.08***	.36	.02	16.32	<.001
Suicide ideation					
Step 1: Hope	-.040***	.16	—	94.45	<.001
Step 2: Family support	-.033***	.26	.10	64.74	<.001
Step 3: Hope $\times$ Family Support	1.17***	.28	.02	16.89	<.001

Note.  $N = 502$ .

\*\*\* $p \leq .001$ .

Lastly, in predicting suicide ideation, hope was found to account for a medium ( $f^2 = .19$ ) 15.9% of the variance in suicide ideation. Family support was found to account for a small-medium ( $f^2 = .11$ ) 9.7% of additional unique variance in suicide ideation. When the Hope  $\times$  Family Support term was entered, it was found to account for a small ( $f^2 = .02$ ), but significant 2.4% of additional unique variance in suicide ideation. The total model was found to account for a large ( $f^2 = .39$ ) 28.0% of the variance in suicide ideation,  $F(3, 498) = 64.52, p < .001$ .

To visually inspect the manner in which hope and family support interacted with each other in predicting suicide risk, we plotted the regression of our proximal measure of suicide risk, namely, suicide ideation, on hope at low and high levels ( $\pm 1$  SD below and above the mean [37.59 and 54.71], respectively) of low versus high family support ( $\pm 1$  SD below and above the mean [28.97 and 43.89], respectively), based on the initial regression results (see Figure 1). As the figure shows, the result of plotting this interaction offers some support for both a doubling up and a doubling down pattern. Consistent with the doubling up hypothesis that the combined presence of protective factors might proffer added benefits, high-hope students with high family support displayed a significantly lower level of suicide ideation than did those with low family support,  $M_s = 5.50$  versus 7.22, respectively,  $t(35) = -2.36, p < .05$ . Additionally, consistent with the doubling down hypothesis that a lack of protective factors is associated with heightened suicide risk, low-hope students with low family support displayed the highest level of suicide ideation ( $M = 13.61$ ), compared to low-hope students with high family support and high-hope students. Parenthetically, a similar pattern emerged when plotting the regression involving our two distal indices of suicide risk, namely, anxious symptoms and depressive symptoms.



**Figure 1.** Suicide ideation at low and high levels of hope among Hungarian college students with low versus high family support.

**Table 3.** Results of Hierarchical Regression Analyses Showing Amount of Variance in Suicide Ideation Accounted for by Hope and Family Support in Hungarian College Students, After Controlling for Anxious and Depressive Symptoms.

Outcome	$\beta$	$R^2$	$\Delta R^2$	$F$	$p$
Suicide ideation					
Step 1: Psychological symptoms	0.44	—	193.03		<.001
Anxious symptoms	0.17***				
Depressive symptoms	0.53***				
Step 2: Hope	−0.11**	.45	.01	8.77	<.01
Step 3: Family support	−0.15***	.46	.02	15.41	<.001
Step 4: Hope $\times$ Family Support	0.60*	.47	.01	5.85	<.05

Note.  $N = 502$ .

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Importantly, because past findings have indicated that the role of hope constructs in predicting proximal suicide risk factors (e.g., suicide ideation) might be weakened after controlling for distal suicide risk factors (e.g., depressive symptoms; Hirsch, Visser, Chang, & Jeglic, 2012), we ran an additional hierarchical regression analysis. For this analysis, we entered the set of psychological symptoms, namely, anxious and depressive symptoms, in Step 1. Next, hope was entered in Step 2, followed by family support in Step 3. Finally, the multiplicative Hope  $\times$  Family term was entered in Step 4. Results of this analysis are presented in Table 3. As the table shows, the set of psychological symptoms accounted for a large ( $f^2 = .77$ ) 43.6% of the variance in suicide ideation. When hope was entered, it was found to account for a small ( $f^2 = .01$ ), but significant 1.0% of additional unique variance in suicide ideation. Next, the inclusion of family support was found to account for a small ( $f^2 = .02$ ), but significant 1.7% of additional unique variance in suicide ideation. Finally, when the Hope  $\times$  Family Support term was entered, it was found to account for a small ( $f^2 = .01$ ), but significant 1.0% of additional unique variance in suicide ideation. The total model was found to account for a

large ( $f^2 = .88$ ) 46.9% of the variance in suicide ideation,  $F(5, 496) = 87.57, p < .001$ .

## Discussion

One goal of the present study was to examine the relations between hope, family support, and suicide risk in Hungarian college students. Consistent with past research findings pointing to hope as a protective factor associated with suicide risk in adults (e.g., Chang et al., 2015; Hirsch et al., 2012; O'Keefe & Wingate, 2013), we found hope to be negatively associated with all three indices of suicide risk examined in the present study, namely, anxious symptoms, depressive symptoms, and suicide ideation. Thus, these findings indicate that Hungarian students who believe they can achieve their goals were less likely to experience anxiety, dysphoria, and suicidal thoughts. Likewise, consistent with the notion that support from the family represents a protective factor associated with suicide risk (e.g., Clum & Febraro, 1994; Hirsch & Barton, 2011; Julkunen & Greenglass, 1989), family support was found to be negatively associated with all three indices of suicide risk. Thus, Hungarian students with a supportive family were also less likely to experience anxiety, dysphoria, and suicidal thoughts. Overall, these findings underscore a central point, namely, the importance of considering protective factors that may be associated with suicide risk in adults (WHO, 2013, 2014).

### Hope and Family Support as Protective Predictors of Suicide Risk in Hungarian College Students: Evidence for Both Doubling Up and Doubling Down Effects

Another important goal of the present study was to determine whether the addition of family support would add further incremental validity to the prediction of suicide risk in Hungarian college students, even after controlling for the variance accounted for by hope. Consistent with expectations (e.g., Brannan et al., 2013; Julkunen & Greenglass, 1989; Tarantino, Kuperminc, Parrott, & Latzman, 2013), we found that family support added significant incremental validity to the prediction of anxious symptoms, depressive symptoms, and suicide ideation. Thus, although hope was found to be a reliable predictor of all three indices of suicide risk, the inclusion of family support provided a small but significant improvement in the prediction model.

Beyond these important findings, the present study also sought to determine whether we would find evidence for an interaction involving hope and family support that was consistent with a doubling up effect, a doubling down effect, or both (Chang, Yu, & Hirsch, 2013). That is, in support of a doubling up effect, we wanted to determine whether the co-presence of hope and family support in Hungarian college students would confer additional protection against suicide risk above and beyond the main effects of high hope and high family support. Alternatively, consistent with a doubling down effect, we also wanted to determine whether the co-absence of hope and

family support would proffer additional vulnerability to suicide risk above and beyond the main effects of low hope and low family support. Noteworthy, after controlling for the variance accounted for by both hope and family support, the Hope  $\times$  Family support term was found to account for a significant 1–2% of additional unique variance across our distal and proximal indices of suicide risk. Indeed, even after controlling for distal suicide risk (viz., anxious symptoms and depressive symptoms), the Hope  $\times$  Family Support term continued to account for 1% of additional unique variance in suicide ideation (our index of proximal suicide risk) beyond hope and family support.

Importantly, a plot of the Hope  $\times$  Family Support interaction in predicting suicide ideation provided support for both a doubling up effect and a doubling down effect. Consistent with a doubling up effect, the pattern of the obtained interaction indicated that suicide ideation was significantly lower among high-hope students with high, compared to low, family support. In contrast, consistent with a doubling down effect, the pattern of the interaction also indicated that suicide ideation was significantly higher among low-hope students with low, compared to high, family support. These patterns are generally consistent with those obtained in other studies that have looked at doubling up and doubling down effects (Chang, Yu, & Hirsch, 2013; Chang, Yu, Kahle, Jeglic, & Hirsch, 2013; Yu & Chang, 2016). Thus, taken together, the present interaction findings and those obtained from other recent studies point to an important consideration for researchers studying the role of positive factors on suicide risk in adults (Wingate et al., 2006), namely, that the potential costs associated with the absence of positive factors need to be considered as much as the potential benefits associated with the presence of these factors in adults.

### ***Some Implications for Including Hope and Family Support in Efforts to Reduce Suicide Risk in College Students***

Given that positive psychology represents a relatively new field that has formally emerged from within American psychology (Seligman & Csikszentmihalyi, 2000), it is not surprising that the study of positive psychological constructs is only now beginning to spread to countries outside the United States, like Hungary (Oláh & Kapitány-Fövény, 2012). In that regard, our findings point to at least two practical implications for potentially reducing or lowering suicide risk in Hungarian college students. First, there is a need to identify students who may lack important suicide protective factors. Thus, for example, within a comprehensive suicide prevention program, counselors should routinely not only assess for the presence of suicide risk and vulnerability factors (e.g., mental illness, trauma/abuse, and social isolation; WHO, 2013, 2014) but also assess for the presence and absence of protective factors like hope and family support. Indeed, conducting a balanced assessment of both suicide risk and protective factors is likely to help both researchers and mental health practitioners effectively identify

those who may be at greatest risk of suicide, which in turn may help practitioners develop useful clinical formulations that help guide prevention, triage, and treatment planning (Silverman & Berman, 2014).

Second, our findings indicate that when working with students at high risk of suicide, it may be useful to help them cultivate and sustain a moderate level of hope to protect them from developing further vulnerability to suicide (e.g., Cheavens, Feldman, Gum, Michael, & Snyder, 2006; Lyubomirsky, Sheldon, & Schkade, 2005). For example, Feldman and Dreher (2012) found that it was possible to increase levels of hope among college students using a single-session hope intervention that focused on helping students identify important goals, understand the importance of hope in goal-seeking behavior, consider ways to achieve those goals, and finally, visualize themselves achieving or realizing those goals. Relatedly, our findings also indicate the importance of working with family members to foster and maintain a positive support system for the student. For example, parents might be trained to look for and identify early signs of suicide risk (e.g., anxiety, dysphoria, and suicide ideation) in students (Power et al., 2009). Thus, parents can serve as a first line of defense in efforts to prevent or reduce the risk of suicide in students and to help students get the professional help needed when family support is simply not enough. Alternatively, our findings also point to the importance of having family counselors work with the family system to help promote and sustain positive and supportive environments for students that may be at risk of suicide. At the very least, when it comes to potentially reducing suicide risk in students, our findings indicate that in addition to having hope, having a supportive family is also likely to make a difference.

### ***Some Limitations of the Present Study***

Despite these important findings, it is also important to note a number of limitations to the present study. First, given that our findings are based on Hungarian college students, it would be useful to determine whether the present findings are generalizable to students from other cultural and ethnoracial backgrounds (e.g., American college students, Latino college students, and Chinese college students). Second, and relatedly, it would be important to determine whether different patterns emerge when studying high-risk students (e.g., students who are clinically anxious, depressed, or suicidal). Third, the present study focused on the role of perceived family support rather than objective family support (e.g., time spent with family members). Thus, it would be important in future studies to determine whether the presence of objective family support also matters in determining the association between hope and suicidal risk in college students. Lastly, it is important to note that beyond the role of hope and family support, other factors should also be considered in future studies. For example, studies have shown that low future orientation (i.e., the belief that the future will not change for the better) is strongly associated with greater suicide risk in adult populations (e.g., Yu & Chang, 2016).

## Concluding Thoughts

In summary, we examined the role of hope and family support as predictors of suicide risk (viz., anxious symptoms, depressive symptoms, and suicide ideation) in college students. Beyond the reliable role of hope as a predictor of suicide risk, we found that family support was uniquely predictive of suicide risk and also moderated the association found between hope and suicide risk. Specifically, we found support for a Hope  $\times$  Family Support interaction effect in predicting suicide ideation, even after controlling for anxious and depressive symptoms. Overall, findings from the present study not only highlight the importance of considering the role that positive social resources, such as the family, might play in abating suicide risk, but they also highlight the value of studying the interpersonal contexts (e.g., low vs. high family support) under which the association between hope and suicide risk might be weakened or strengthened.

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